NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

July 16, 1986
(NMP2L 0784)

Ms. Elinor G. Adensam, Director
BWR Project Directorate No. 3
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Washington, DC 20555

Dear Ms. Adensam:

Re: Nine Mile Point Unit 2
Docket No. 50-410

Enclosed are updated Final Safety Analysis Report pages for Nine Mile Point Unit 2. This information reflects the as-built protective coatings in the drywell as discussed with the Nuclear Regulatory Commission staff on July 3, 1986. This will be incorporated in a subsequent Final Safety Analysis Report amendment.

If there are any questions, please contact Mr. Rademacher of my staff.

Very truly yours,

T. E. Lempges
Vice President
Nuclear Generation

TEL/NLR:ja
1825G

Enclosure

xc: William Cook, NRC Resident Inspector
Project File (2)

B001
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6.1.2.2 Protective Coatings in the Drywell

The majority of the exposed surface within the drywell, i.e., primary containment liner, drywell head, biological shield wall, structural steel cranes, pipe rupture restraints, pipe supports, piping, and concrete, are coated with materials qualified in accordance with ANSI N101.2 and applied in accordance with Regulatory Guide 1.54 as addressed in Table 1.8-1. The coating systems used on metallic surfaces are either an inorganic zinc primer with or without a catalyzed epoxy enamel topcoat or a catalyzed epoxy enamel primer with or without a catalyzed epoxy enamel topcoat. A catalyzed epoxy surface covering with a catalyzed epoxy enamel topcoat is used on concrete surfaces.

The total estimated area of any unqualified protective coating used on surfaces within the drywell is given in Table 6.1-3. These surfaces include, but are not limited to, items such as valve bodies, handwheels, electrical and control panels, loudspeakers, emergency light cases, etc. The amount of other organic materials used, such as cable insulation, is also included in the table.

Untopcoated Carbo-Zinc 11 (CZ-11), an inorganic zinc primer, has been tested and design basis accident qualified for the thickness range of 2.0 to 3.3 mils (reference Carboline Test Program No. 02294 dated April 1, 1985). Similar tests were conducted by Oak Ridge National Laboratory in 1982 (reference Test No. ORNL A9675, 10-13-2 dated October 21, 1982). Although the CZ-11 does not possess the same physical characteristics of hardness as the material represented by the ORNL test, the mode of degradation in both tests was by granulation. The resulting very fine particles, less than 20 microns in size, would not block strainers and nozzles which form a part of the post-accident cooling systems. There also exists in the primary containment untopcoated CZ-11 in the thickness range of 3.3 to 6.0 mils that has not been specifically tested. Extrapolating the results of the tests performed on other thicknesses of the same material topcoated CZ-11 for thicknesses greater than 3.3 mils will behave in a similar manner in that degradation, if it occurs, will be by granulation. However, since material of this thickness range has not been specifically qualified, it is included in Table 6.1-3.

The total amount of all unqualified protective coatings, if assumed to create debris under DBA conditions, is determined not to be a safety problem since (a) the total amount of paint involved is small; (b) it is unlikely that all paint would fail simultaneously; (c) it is unlikely that a significant portion of paint flakes would be transported to the suppression pool because of the tortuous path flakes would follow; (d) suction strainers are located neither at the bottom nor near the pool water surface so that sinking or floating particles would not clog them, and low approach velocities would minimize suspended particle migration toward the strainers; and (e) the emergency core cooling analyses are performed assuming 50 percent clogging of strainers.

TABLE 6.1-3

UNQUALIFIED PROTECTIVE COATINGS AND ORGANIC MATERIALS USED INSIDE THE PRIMARY CONTAINMENT

	Material	Quantity
Protective Coatings		
Inside Drywell		
Portions of the liner and supports and also certain misc. equipment	Inorganic zinc	6,700 $ft.^2$ @ 3.3 to 6.0 mil DFT
	Epoxy based	8,960 $ft.^2$ @ 8 mil DFT
	Alkyd based	300 $ft.^2$ @ 3 mil DFT
	Modified phenolic	460 $ft.^2$ @ 5 mil DFT
Inside Suppression Pool		
Valve actuator enclosures	Alkyd based	50 $ft.^2$ @ 3 mil DFT
Other Organic Materials		
Cable Insulation	**Covered**	**Uncovered**
Ethylene propylene rubber	1,920 lb@23 ft^3	1,280 lb@16 ft^2
Hypalon	8,890 lb@92 ft^3	1,060 lb@11 ft^2
Cross-linked polyethylene	6,840 lb@77 ft^3	100 lb@1.1 ft^3
Polypropylene	630 lb@6 ft^3	0
Motor electrical insulation(1)	None	1,390 lb
Shimming material	Devcon plastic steel A or B (catalyzed epoxy with 80% steel)	300 lb

(1) Approximate weight of recirculation drive motor stator insulation, wedges, and detectors.